STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information
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form:

Application Serial Number: *10/561, 691*

Source: *IFWP*

Date Processed by STIC: *01/11/2007*

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
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1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE
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2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A
   NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO **REDUCE** ERRORED SEQUENCE LISTINGS, **PLEASE** USE THE **CHECKER
VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND
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> **http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm**

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Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the
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1. EFS-Bio (**<http://www.uspto.gov/ebc/efs/downloads/documents.htm>** , **EFS Submission
   User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
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Revised 01/10/06

IFWP

RAW SEQUENCE LISTING   DATE: 01/11/2007
PATENT APPLICATION: **US/10/561,691**   TIME: 10:31:01

Input Set : **A:\Sequence Listing 36759-20005.00.txt**
Output Set: **N:\CRF4\01112007\J561691.raw**

```
 4 <110> APPLICANT: Kazakov, Sergei A.
 5       Dallas, Anne
 6       Kuo, Tai-Chih
 7       Johnston, Brian H.
 9 <120> TITLE OF INVENTION: Polynucleotides Capable of
10       Target-Dependent Circularization and Topological Linkage
13 <130> FILE REFERENCE: 367592000500
15 <140> CURRENT APPLICATION NUMBER: 10/561,691
16 <141> CURRENT FILING DATE: 2005-12-21
18 <150> PRIOR APPLICATION NUMBER: PCT/US2004/020589
19 <151> PRIOR FILING DATE: 2004-06-25
21 <150> PRIOR APPLICATION NUMBER: US 60/482,653
22 <151> PRIOR FILING DATE: 2003-06-25
24 <160> NUMBER OF SEQ ID NOS: 50
26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
28 <210> SEQ ID NO: 1
29 <211> LENGTH: 74
30 <212> TYPE: DNA
31 <213> ORGANISM: Artificial Sequence
33 <220> FEATURE:
34 <223> OTHER INFORMATION: Synthetic Construct
36 <400> SEQUENCE: 1
37 cgtccgtatg acgagagaag ctgaccagag aaacacacga cgtaagtcgt ggtacattac 60
38 ctggtaacag aggc                                                  74
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 69
42 <212> TYPE: DNA
43 <213> ORGANISM: Artificial Sequence
45 <220> FEATURE:
46 <223> OTHER INFORMATION: Synthetic Construct
48 <400> SEQUENCE: 2
49 tgttgttgtt gttgttgttg tgcctatgtc tcagcctctg ttaccaggta atgtaccacg 60
50 acttacgtc                                                        69
52 <210> SEQ ID NO: 3
53 <211> LENGTH: 51
54 <212> TYPE: DNA
55 <213> ORGANISM: Artificial Sequence
57 <220> FEATURE:
58 <223> OTHER INFORMATION: Synthetic Construct
60 <400> SEQUENCE: 3
61 taatacgact cactataggg cagccgtcct cgtccgtatg acgagagaag c          51
63 <210> SEQ ID NO: 4
64 <211> LENGTH: 45
```

Does Not Comply
Corrected Diskette Needed

```
 65 <212> TYPE: DNA
 66 <213> ORGANISM: Artificial Sequence
 68 <220> FEATURE:
 69 <223> OTHER INFORMATION: Synthetic Construct
 71 <400> SEQUENCE: 4
 72 tatgacgagg acggctggtt gttgttgttg ttgttgttgt tgtgc              45
 74 <210> SEQ ID NO: 5
 75 <211> LENGTH: 45
 76 <212> TYPE: DNA
 77 <213> ORGANISM: Artificial Sequence
 79 <220> FEATURE:
 80 <223> OTHER INFORMATION: Synthetic Construct
 82 <400> SEQUENCE: 5
 83 tatgacgagg acggctgatt gttgttgttg ttgttgttgt tgtgc              45
 85 <210> SEQ ID NO: 6
 86 <211> LENGTH: 45
 87 <212> TYPE: DNA
 88 <213> ORGANISM: Artificial Sequence
 90 <220> FEATURE:
 91 <223> OTHER INFORMATION: Synthetic Construct
 93 <400> SEQUENCE: 6
 94 tatgacgagg acggctgagt gttgttgttg ttgttgttgt tgtgc              45
 96 <210> SEQ ID NO: 7
 97 <211> LENGTH: 45
 98 <212> TYPE: DNA
 99 <213> ORGANISM: Artificial Sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Synthetic Construct
104 <400> SEQUENCE: 7
105 tatgacgagg acggctgaga gttgttgttg ttgttgttgt tgtgc              45
107 <210> SEQ ID NO: 8
108 <211> LENGTH: 45
109 <212> TYPE: DNA
110 <213> ORGANISM: Artificial Sequence
112 <220> FEATURE:
113 <223> OTHER INFORMATION: Synthetic Construct
115 <400> SEQUENCE: 8
116 tatgacgagg acggctgaga cttgttgttg ttgttgttgt tgtgc              45
118 <210> SEQ ID NO: 9
119 <211> LENGTH: 45
120 <212> TYPE: DNA
121 <213> ORGANISM: Artificial Sequence
123 <220> FEATURE:
124 <223> OTHER INFORMATION: Synthetic Construct
126 <400> SEQUENCE: 9
127 tatgacgagg acggctgaga catgttgttg ttgttgttgt tgtgc              45
129 <210> SEQ ID NO: 10
130 <211> LENGTH: 17
131 <212> TYPE: DNA
```

```
            RAW SEQUENCE LISTING            DATE: 01/11/2007
            PATENT APPLICATION:  US/10/561,691   TIME: 10:31:01

            Input Set : A:\Sequence Listing 36759-20005.00.txt
            Output Set: N:\CRF4\01112007\J561691.raw
```

```
      132 <213> ORGANISM: Artificial Sequence
      134 <220> FEATURE:
      135 <223> OTHER INFORMATION: Synthetic Construct
      137 <400> SEQUENCE: 10
      138 gcttctctcg tcatacg                                    17
      140 <210> SEQ ID NO: 11
      141  <211> LENGTH: 28
      142 <212> TYPE: DNA
      143 <213> ORGANISM: Artificial Sequence
      145 <220> FEATURE:
      146 <223> OTHER INFORMATION: Synthetic Construct
      148 <400> SEQUENCE: 11
      149 taatacgact cactataggg cagccgtc                        28
      151 <210> SEQ ID NO: 12
      152 <211> LENGTH: 29
      153 <212> TYPE: DNA
      154 <213> ORGANISM: Artificial Sequence
      156 <220> FEATURE:
      157 <223> OTHER INFORMATION: Synthetic Construct
      159 <400> SEQUENCE: 12
      160 ggtgacacta tgatgcatat gacgaggac                       29
      162 <210> SEQ ID NO: 13
      163 <211> LENGTH: 59
      164 <212> TYPE: RNA
      165 <213> ORGANISM: Artificial Sequence
      167 <220> FEATURE:
      168 <223> OTHER INFORMATION: Synthetic Construct
W-->  170 <221> NAME/KEY: misc_feature
      171 <222> LOCATION: 1-5, 10, 13-19, 27-35, 41-48, 54, 56-60
      172 <223> OTHER INFORMATION: n = A, U, G or C
W-->  174 <221> misc_feature
      175 <222> LOCATION: 6
      176 <223> OTHER INFORMATION: n = U, C or G
W-->  178 <221> misc_feature
      179 <222> LOCATION: 7, 11, 49
      180 <223> OTHER INFORMATION: n = U or C
W-->  182 <221> misc_feature
      183 <222> LOCATION: 8, 25
      184 <223> OTHER INFORMATION: n = A, C or U
W-->  186 <221> misc_feature
      187 <222> LOCATION: 12
      188 <223> OTHER INFORMATION: n = A or G
W-->  190 <221> misc_feature
      191 <222> LOCATION: (55)...(55)
      192 <223> OTHER INFORMATION: n = A, C or G
W-->  194 <400> 13
W-->  195 nnnnnnnngn nnnnnnnnca uuanannnnn nnnncaaagn nnnnnnnnga agnnnnnnn  59
      197 <210> SEQ ID NO: 14
      198 <211> LENGTH: 22
```

Handwritten annotations:
→ 'c' at this location
↳ 'c' at this location
→ 'a' at this location
↗ 'n' at 40
↳ 'n' at this location

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```
    199 <212> TYPE: RNA
    200 <213> ORGANISM: Artificial Sequence
    202 <220> FEATURE:
    203 <223> OTHER INFORMATION: Synthetic Construct
    205 <400> SEQUENCE: 14
    206 ucggaacagg gaacuucucu ug                                          22
    208 <210> SEQ ID NO: 15
    209 <211> LENGTH: 119
    210 <212> TYPE: RNA
    211 <213> ORGANISM: Artificial Sequence
    213 <220> FEATURE:
    214 <223> OTHER INFORMATION: Synthetic Construct
    216 <400> SEQUENCE: 15
    217 ccagucaaga gaaguucccu guuccgagcc cuuuuuuucc uugucccuug aagagaacug 60
    218 guccauuaua ugguguugca cacaaagaga ccaacugaag agacaguaug ccuguccug 119
    220 <210> SEQ ID NO: 16
    221 <211> LENGTH: 139
    222 <212> TYPE: RNA
    223 <213> ORGANISM: Artificial Sequence
    225 <220> FEATURE:
    226 <223> OTHER INFORMATION: Synthetic Construct
W-->228 <221> NAME/KEY: misc_feature
    229 <222> LOCATION: (39)...(58)
    230 <223> OTHER INFORMATION: n = A, G, C or U
W-->232 <400> 16
W-->233 cugcuccugc cgaccaacaa caacaacaac aauaagagnn nnnnnnnnnn nnnnnnnnca 60
    234 augguccauu acauggugcu gaaugcagca cacaaagaga ccagucgaag agagcaguau 120
    235 gccugcuccu gccgacggg                                              139
    237 <210> SEQ ID NO: 17
    238 <211> LENGTH: 122
    239 <212> TYPE: RNA
    240 <213> ORGANISM: Artificial Sequence
    242 <220> FEATURE:
    243 <223> OTHER INFORMATION: Synthetic Construct
W-->245 <221> NAME/KEY: misc_feature
    246 <222> LOCATION: (30)...(49)
    247 <223> OTHER INFORMATION: n = A, G, C or U
W-->249 <400> 17
W-->250 ccgaccaaca acaacaacaa caauaagagn nnnnnnnnnn nnnnnnnnnc aaugguccau 60
    251 uacauggugc ugaaugcagc acacaaagag accagucgaa gagagcagua ugccugcucc 120
    252 ug                                                               122
    254 <210> SEQ ID NO: 18
    255 <211> LENGTH: 142
    256 <212> TYPE: RNA
    257 <213> ORGANISM: Artificial Sequence
    259 <220> FEATURE:
    260 <223> OTHER INFORMATION: Synthetic Construct
W-->262 <221> NAME/KEY: misc_feature
    263 <222> LOCATION: (18)...(22)
```

```
      264 <223> OTHER INFORMATION: n = A, C, G or U
W-->  266 <400> 18
W-->  267 auacugcucc ugccgacnnn nnacaacaac aacaacaaca acacggauac agagucggag 60
      268 acaauggucc auuacauggu gcugaaugca gcacacaaag agaccagucg aagagaccug 120
      269 uaugccaggu ccugccgacg gg                                         142
      271 <210> SEQ ID NO: 19
      272 <211> LENGTH: 10
      273 <212> TYPE: RNA
      274 <213> ORGANISM: Artificial Sequence
      276 <220> FEATURE:
      277 <223> OTHER INFORMATION: Synthetic Construct
      279 <400> SEQUENCE: 19
      280 ccgacucugu                                                       10
      282 <210> SEQ ID NO: 20
      283 <211> LENGTH: 10
      284 <212> TYPE: RNA
      285 <213> ORGANISM: Artificial Sequence
      287 <220> FEATURE:
      288 <223> OTHER INFORMATION: Synthetic Construct
      290 <400> SEQUENCE: 20
      291 ccgacucuga                                                       10
      293 <210> SEQ ID NO: 21
      294 <211> LENGTH: 10
      295 <212> TYPE: RNA
      296 <213> ORGANISM: Artificial Sequence
      298 <220> FEATURE:
      299 <223> OTHER INFORMATION: Synthetic Construct
      301 <400> SEQUENCE: 21
      302 ccgacucuca                                                       10
      304 <210> SEQ ID NO: 22
      305 <211> LENGTH: 10
      306 <212> TYPE: RNA
      307 <213> ORGANISM: Artificial Sequence
      309 <220> FEATURE:
      310 <223> OTHER INFORMATION: Synthetic Construct
      312 <400> SEQUENCE: 22
      313 ccgacucaca                                                       10
      315 <210> SEQ ID NO: 23
      316 <211> LENGTH: 10
      317 <212> TYPE: RNA
      318 <213> ORGANISM: Artificial Sequence
      320 <220> FEATURE:
      321 <223> OTHER INFORMATION: Synthetic Construct
      323 <400> SEQUENCE: 23
      324 ccgacuaaca                                                       10
      326 <210> SEQ ID NO: 24
      327 <211> LENGTH: 10
      328 <212> TYPE: RNA
      329 <213> ORGANISM: Artificial Sequence
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 01/11/2007
PATENT APPLICATION: **US/10/561,691**   TIME: 10:31:02

Input Set : **A:\Sequence Listing 36759-20005.00.txt**
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Please Note:
**Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.**

Seq#:13; N Pos. 1,2,3,4,5,6,7,8,10,11,12,13,14,15,16,17,18,24,26,27,28,29
Seq#:13; N Pos. 30,31,32,33,34,40,41,42,43,44,45,46,47,48,53,54,55,56,57,58
Seq#:13; N Pos. 59
Seq#:16; N Pos. 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58
Seq#:17; N Pos. 30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49
Seq#:18; N Pos. 18,19,20,21,22

VERIFICATION SUMMARY   DATE: 01/11/2007
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Input Set : **A:\Sequence Listing 36759-20005.00.txt**
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```
L:170 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:174 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:178 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:182 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:186 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:190 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:194 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:228 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:232 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16
L:233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:245 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:249 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:17
L:250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:262 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:266 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
```